

SECTION III—REMARKS

This amendment is submitted in response to the final Office Action mailed May 31, 2006. Claim 1 is amended and claims 1-6 and 9 remain pending in the application. Applicants respectfully request reconsideration of the application and allowance of all pending claims in view of the above amendments and the following remarks.

Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 1-3 and 5 as anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 5,087,961 to Long *et al.* ("Long"). Applicants respectfully traverse the Examiner's rejections. A claim is anticipated only if each and every element, as set forth in the claim, is found in a single prior-art reference. MPEP § 2131; *Verdegaal Bros. v. Union Oil of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). For at least the reasons explained below, *Long* cannot anticipate these claims because it does not disclose every element and limitation recited therein.

Claim 1, as amended, recites an apparatus combination including:

a die mounted on a substrate, the die being connected to the substrate by a plurality of wires; and

a mold cap encapsulating the die and the plurality of wires, the mold cap comprising an electrically insulating portion encapsulating substantially all the wires and the entire die, and a thermally conductive portion encapsulating substantially all the electrically insulating portion, wherein the thermally conductive portion is in contact *only with the substrate and the entire part of the surface of the electrically insulating portion that is not in contact with the substrate, the die or the wires.*

(emphasis added). *Long* does not disclose a combination including the recited limitations. Instead, in Fig. 7, *Long* discloses an apparatus in which a die 24 is attached to a gold layer 14 and is wire bonded to lead fingers or conductive elements of gold layer 14. After wire bonding, die 24 and the wires are encapsulated in a silicone gel (col. 3, lines 39-45). A body frame 40 is positioned surrounding die 24 and the silicone gel, and then is bonded to gold layer 14 (col. 4, lines 11-18). Once body frame 40 is bonded to gold layer 14, an electronic grade epoxy material 52 is dispensed into the interior of body frame 40 such that epoxy material 52 encapsulates the top of body frame 40 and the elements within the body frame (col. 4, lines 19-30).

Because epoxy material 52 is in contact with at least the die, the wires and body frame 40, *Long* cannot disclose, teach or suggest a combination including a thermally conductive portion encapsulating substantially all the electrically insulating portion wherein the thermally conductive portion is in contact "only with the substrate and the entire part of the surface of the electrically insulating portion that is not in contact with the substrate, the die or the wires." For at least this reason, Applicants submit that *Long* cannot anticipate the claim. Applicants therefore respectfully request withdrawal of the rejection and allowance of the claim.

Regarding claims 2-3 and 5, if an independent claim is allowable, then any claim depending therefrom is also allowable. See, e.g., MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, claim 1 is in condition for allowance. Applicants submit that claims 2-3 and 5 are therefore allowable by virtue of their dependence on an allowable independent claim, as well as by virtue of the features recited

therein. Applicants therefore respectfully request withdrawal of the rejections and allowance of these claims.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 4, 6 and 9 under 35 U.S.C. § 103(a) as obvious in view of, and therefore unpatentable over, *Long* in view of U.S. Patent No. 6,309,915 to DiStefano ("DiStefano"). Applicants respectfully traverse the Examiner's rejections. If an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is also non-obvious. MPEP § 2143.03; *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). As discussed above, independent claim 1 is in condition for allowance. Applicants submit that claims 4, 6 and 9 are therefore allowable by virtue of their dependence on an allowable independent claim, as well as by virtue of the features recited therein. Applicants therefore respectfully request withdrawal of the rejections and allowance of these claims.

Conclusion

Given the above amendments and accompanying remarks, all claims pending in the application are in condition for allowance. If the undersigned attorney has overlooked a teaching in any of the cited references that is relevant to allowance of the claims, the Examiner is requested to specifically point out where such teaching may be found. Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 292-8600.

Charge Deposit Account

Please charge our Deposit Account No. 02-2666 for any additional fee(s) that may be due in this matter, and please credit the same deposit account for any overpayment.

Respectfully submitted,

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Date: 7-28-06

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Enclosures: Amendment transmittal, in duplicate